



Amendments to the Claims

1. (Cancelled)
2. (Previously presented) The trauma mitigation device of Claim 5 wherein:
said viscous fluid includes macrosphere particles having a diameter between about 0.5 mm and 5.0 mm.
3. (Original) The trauma mitigation device of Claim 2, wherein said fluid has a viscosity between about 300,000 CPS to 6,000,000 CPS.
4. (Previously presented) The trauma mitigation device of Claim 5, wherein said fluid has a viscosity between about 300,000 CPS to 6,000,000 CPS.
5. (Previously presented) A trauma mitigation device comprising:
an enclosure having a fluid impervious barrier;
a crushable matrix disposed within said enclosure, wherein the crushable matrix has a plurality of matrix elements selected from the group consisting of cylinders, hemispheres or pyramids; and
a viscous fluid disposed within said enclosure.
6. (Original) The trauma mitigation device of Claim 5, wherein said crushable matrix includes a supporting layer disposed adjacent to said enclosure.
7. (Original) The trauma mitigation device of Claim 6, wherein said supporting layer is metal fashioned in a crushable shape.
8. (Original) The trauma mitigation device of claim 7, wherein said crushable shape is a corrugated sheet.
9. (Original) The trauma mitigation device of Claim 7, wherein said

crushable shape is a plurality of hexagonal cells.

10. (Original) The trauma mitigation device of Claim 6, wherein said supporting layer is made from a material selected from the group consisting of: ductile metal, polymeric material, ceramic, or ceramic alloy.

11. (Original) The trauma mitigation device of Claim 5, wherein said enclosure is formed from a flexible material selected from the group consisting of: a polymeric film, fully-reticulated foam, rubberized woven fabric, rubberized non-woven fabric, elastomeric woven material, or elastomeric non-woven material.

12. (Previously presented) The trauma mitigation device of Claim 11, wherein said flexible material is formed having at least one accordion pleat along an edge of said enclosure, said pleat structured to accommodate percussive expansion along the plane of said enclosure.

13. (Original) The trauma mitigation device of Claim 11, wherein said material is formed of a pair of parallel barriers each about 20 mils thick.

14. (Original) The trauma mitigation device of Claim 5, wherein said enclosure includes a layer of foam connected to a pressurized air source.

15. (Previously presented) The trauma mitigation device of Claim 5, wherein:

the crushable matrix includes a plurality of hemispheres; and
said hemispheres disposed in pairs connected at the convexities

16. (Previously presented) A trauma mitigation device comprising:
an enclosure having a fluid impervious barrier;
a crushable matrix disposed within said enclosure;
a viscous fluid disposed within said enclosure;

wherein said crushable matrix includes a plurality of hemispheres;
said hemispheres disposed in pairs connected at the convexities; and
wherein said viscous fluid is disposed inside of and outside of said
hemispheres.

17. (Previously presented) The trauma mitigation device of Claim 5,
wherein:

the crushable matrix includes a plurality of pyramids; and
said pyramids disposed in pairs connected at the apexes.

18. (Previously presented) A trauma mitigation device comprising:
an enclosure having a fluid impervious barrier;
a crushable matrix disposed within said enclosure;
a viscous fluid disposed within said enclosure;
said crushable matrix includes a plurality of pyramids;
said pyramids disposed in pairs connected at the apexes; and
wherein said viscous fluid is disposed outside of each said pyramid.

19. (Original) The trauma mitigation device of Claim 18, wherein:
wherein said crushable matrix includes a supporting layer;
said each pyramid in said plurality of pyramids has a base; and
each said pyramid base abuts said supporting layer.

20. (Previously presented) A trauma mitigation device comprising:
an enclosure having a fluid impervious barrier;
a crushable matrix disposed within said enclosure;
a viscous fluid disposed within said enclosure;
said crushable matrix includes a plurality of pyramids;
said pyramids disposed in pairs connected at the apexes;
wherein said crushable matrix includes a supporting layer;
said each pyramid in said plurality of pyramids has a base with arms extending

from said base; and

said arms contact said supporting layer.

21. (Previously presented) The trauma mitigation device of Claim 5, wherein said enclosure is formed from a flexible material selected from the group consisting of: a polymeric film, fully-reticulated foam, rubberized woven fabric, rubberized non-woven fabric, elastomeric woven material, or elastomeric non-woven material.

22. (Previously presented) The trauma mitigation device of Claim 21, wherein said flexible material is formed having at least one accordion pleat along an edge of said enclosure, said pleat structured to accommodate percussive expansion along the plane of said enclosure.

23. (Original) The trauma mitigation device of Claim 21, wherein said material is formed of a pair of parallel barriers each about 20 mils thick.

24. (Previously presented) The trauma mitigation device of Claim 5, wherein said enclosure includes a layer of foam connected to a pressurized air source.

25.-45 (Cancelled)